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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,299	06/01/2006	Shigenobu Yoshida	1417-522	1323

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EXAMINER	
FREEMAN, JOHN D	

ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
07/08/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/563,299	YOSHIDA ET AL.	
	Examiner	Art Unit	
	John Freeman	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7 and 9-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7 and 9-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

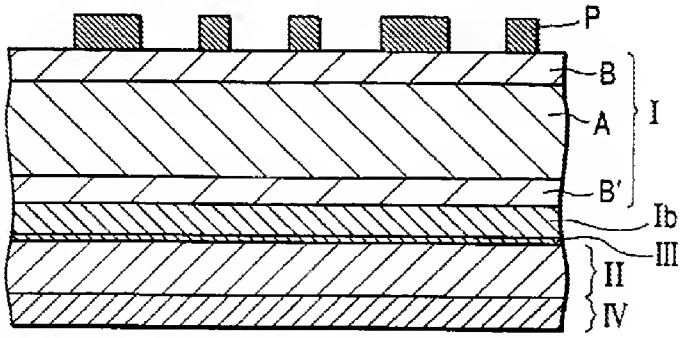
1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 27 April 2009 has been entered.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-2, 4-5, 7, 9, and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (US 6,013,363) in view of Kajimaru et al. (US 2002/0061959).

4. Takahashi discloses the following laminate structure in Fig. 3:



5. The relevant layers are defined as follows (col 6 ln 62-65; claim 16):

a. (I) is a microporous resin film base layer,
b. (Ib) is a primer layer,
c. (II) is a gas barrier resin film layer,
d. (III) is an inorganic thin film layer,
e. (IV) is a heat sealable resin layer, and
f. (P) is a print layer.

6. The laminate has the following properties (col 1 ln 60-65):

- (i) the laminate has a water vapor permeability (JIS Z-0208) of 5 g/(m^2•24 hr) or less, preferably 2 g/(m^2•24 hr) or less; and
- (ii) the laminate has an oxygen permeability (JIS Z-1707) of 5 cc/(m^2•24 hr • atm) or less, preferably 2 cc/(m^2•24 hr • atm) or less.

7. Takahashi teaches an inorganic film having a thickness of 5-600nm, thereby overlapping with Applicant's range (col 5 ln 36-37). As set forth in MPEP 2144.05, in the case where the claimed range "overlap or lie inside ranges disclosed by the prior art", a *prima facie* case of obviousness exists, In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

8. The gas barrier resin film comprises polyesters (col 5 ln 17-19). Although Takahashi mentions the thickness of the gas barrier film (II) ranges from 6-40 μm, Takahashi does not disparage lower thicknesses. One of ordinary skill that adjusting the thickness of the barrier layer would result in a necessary trade off between gas barrier properties and film flexibility. It has long been an axiom of United States patent law that it is not inventive to discover the optimum or workable ranges of result-effective variables by routine experimentation. *In re Peterson,* 315 F.3d 1325, 1330 (Fed. Cir. 2003) ("The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages."); *In re Boesch,* 617 F.2d 272, 276 (CCPA 1980) ("[D]iscovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art."); *In re Aller,* 220 F.2d 454, 456 (CCPA 1955) ("[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation."). "Only if the 'results of optimizing a variable' are 'unexpectedly good' can a patent be obtained for the claimed critical range." *In re Geisler,* 116 F.3d 1465, 1470 (Fed. Cir. 1997) (quoting *In re Antonie,* 559 F.2d 618, 620 (CCPA 1977)). At the time of the invention, it would have been obvious to one of ordinary skill in the art to use a gas barrier film with a lower thickness to increase the flexibility of the overall laminate.

9. Takahashi is silent with regard to the glass transition temperature, molecular weight, and hydroxyl value of the polyester used for the gas barrier resin film.

10. Kajimaru discloses a polyester resin having high waterproofness, and useful as a coating [0001-4]. The polyester resin has a hydroxyl value of less than 30mg KOH/g [0035] and a weight average molecular weight of 9,000 or more [0009]. Kajimaru discloses the polyester resin has glass transition temperatures in the range of 40-100˚C, thereby overlapping with Applicant's range [0036]. Example embodiments of the resin have glass transition temperatures within the range claimed by Applicant (p10, Table 1). As set forth in MPEP 2144.05, in the case where the claimed range "overlap or lie inside ranges disclosed by the prior art", a *prima facie* case of obviousness exists, In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). The examiner notes Kajimaru's polyester resins comprise terephthalic acid, isophthalic acid, ethylene glycol, and neopentyl glycol [0122], just as Applicant discloses in Example 1 (p31 of the present specification).

11. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Kajimaru's polyester resin as the gas-barrier in Takahashi's laminate to improve the waterproof qualities of the barrier.

12. This table describes which layers of Takahashi correspond to a given layer of Applicant:

Applicant	Takahashi
(A) Plastic substrate	(I) microporous base layer
(B) Inorganic thin film	(III) Inorganic thin film
(C) Polyester-based coating material	(II) Gas barrier resin film
Anchor coat layer	(Ib) Primer layer

13. Regarding claim 2:

14. The (I) microporous base layer comprises a synthetic paper made of polyethylene, polyamides, or polyethylene terephthalate (col 4 ln 21-24).

15. Regarding claims 4-5:

16. Kajimaru discloses isocyanate curing compounds for use in the polyester resin to improve processing, waterproofness, and solvent resistance [0078]. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use an isocyanate curing compound in Takahashi to improve processing, and waterproofness, and also keep the hydroxyl value of the isocyanate approximately the same as the value of the polyester to ensure the waterproof property of the layer.

17. Regarding claim 7:

18. The film can be chemically vapor-deposited (CVD) (col 5 ln 64) and comprises aluminum oxide or silicon oxide (col 5 ln 38).

19. Regarding claim 9:

20. As mentioned the primer layer corresponds to Applicant's anchor layer. The primer comprises polyurethane (col 6 ln 27).

21. Regarding claim 12:

22. The present claim is written in a product-by-process format. Given the final product of Takahashi with Kajimaru comprises the same layers as Applicant discloses in the present claims, the examiner takes the position the final product would be indistinguishable from the product presently claimed.

23. Regarding claims 13-15:

24. Since the laminate created by the combination of Takahashi with Kajimaru comprises the same layers as Applicant discloses in the present claims, the examiner takes the position that the laminate would intrinsically possess the properties as described in the present claims 13-15.

25. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (US 6,013,363) in view of Kajimaru et al. (US 2002/0061959) as applied to claims 1-2, 4-5, 7-9, and 12-15 above, and further in view of Hall et al. (US 2002/0009564).

26. Takahashi in view of Kajimaru is previously described.

27. Both references are silent with regard to a fatty acid, fatty ester, or fatty amide being added to the polyester resin layer.

28. Fatty acid amides are well-known slip additives to polyester, however, as evidenced by Hall et al. [0002].

29. At the time of the invention, it would have been obvious to one of ordinary skill in the art to add fatty acid amides to the polyester resin layer to improve its slip and, therefore, handling properties. Given that the range claimed by Applicant is so broad, one of ordinary skill would have naturally arrived at values within the range during routine optimization of the amount used.

30. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (US 6,013,363) in view of Kajimaru et al. (US 2002/0061959) as applied to claims 1-2, 4-5, 7-9, and 12-15 above, and further in view of Powell et al (US 5,427,235).

31. Takahashi in view of Kajimaru is previously described. Given that claim 11 of the present application allows for layers disposed between the printed layer and heat seal layer, while describing the heat seal layer as being on the surface of said printed layer, the examiner considers the printed layer (P) to be on a surface of the (II) gas barrier layer, which corresponds to the polyester-based resin coating layer.

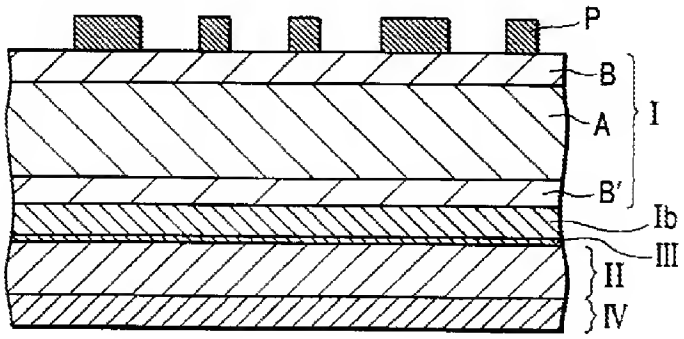
32. Both references are silent with regard to a printed layer having a heat seal layer thereon.

33. Applying a heat seal layer to a printed layer was well-known in the packaging art, however. For example, Powell et al. disclose a heat seal layer applied to a printed surface (Abstract, col 4 ln 64-65).

34. At the time of the invention, it would have been obvious to one of ordinary skill in the art to apply a heat seal layer to the printed layer (P) disclosed by Takahashi to create a new sealing surface as needed to protect the print layer.

35. Claims 1-2, 4-5, 7-9, and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (US 6,013,363) in view of Kajimaru et al. (US 2002/0061959).

36. Takahashi et al. (hereafter Takahashi) discloses the following laminate structure in Fig. 3:



37. The relevant layers are defined as follows (col 6 ln 62-65; claim 16):

g. (I) is a microporous resin film base layer,
h. (Ib) is a primer layer,
i. (II) is a gas barrier resin film layer,
j. (III) is an inorganic thin film layer,
k. (IV) is a heat sealable resin layer, and
l. (P) is a print layer.

38. The laminate has the following properties (col 1 ln 60-65):

- (i) the laminate has a water vapor permeability (JIS Z-0208) of 5 g/(m^2•24 hr) or less, preferably 2 g/(m^2•24 hr) or less; and
- (ii) the laminate has an oxygen permeability (JIS Z-1707) of 5 cc/(m^2•24 hr • atm) or less, preferably 2 cc/(m^2•24 hr • atm) or less.

39. Takahashi teaches an inorganic film having a thickness of 5-600nm, thereby overlapping with Applicant's range (col 5 ln 36-37). As set forth in MPEP 2144.05, in the case where the claimed range "overlap or lie inside ranges disclosed by the prior art", a *prima facie* case of obviousness exists, In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

40. Takahashi is silent with regard to the glass transition temperature, molecular weight, and hydroxyl value of the polyester used for the gas barrier resin film, as well as a thickness of the polyester layer ranging from 0.5-5 μm.

41. Kajimaru et al. (hereafter Kajimaru) disclose a polyester resin having high waterproofness, and useful as a coating [0001-4]. The polyester resin has a hydroxyl value of less than 30mg KOH/g [0035] and a weight average molecular weight of 9,000 or more [0009]. Kajimaru discloses the polyester resin has glass transition temperatures in the range of 40-100˚C, thereby overlapping with Applicant's range [0036]. Example embodiments of the resin have glass transition temperatures within the range claimed by Applicant (p10, Table 1). As set forth in MPEP 2144.05, in the case where the claimed range "overlap or lie inside ranges disclosed by the prior art", a *prima facie* case of obviousness exists, In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). The examiner notes Kajimaru's polyester resins comprise terephthalic acid, isophthalic acid, ethylene glycol, and neopentyl glycol [0122], just as Applicant discloses in Example 1 (p31 of the present specification).

42. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Kajimaru's polyester resin as the gas-barrier in Takahashi's laminate to improve the waterproof qualities of the barrier.

43. Although Takahashi mentions the thickness of the gas barrier film (II) ranges from 6-40 μm, Takahashi does not disparage lower thicknesses. Kajimaru teaches the thickness of the waterproof film may be adjusted depending on its use, but may range from 0.01-100 μm. One of ordinary skill that adjusting the thickness of the barrier layer would result in a necessary trade off between gas barrier properties and film flexibility. It has long been an axiom of United States patent law that it is not inventive to discover the optimum or workable ranges of result-effective variables by routine experimentation. *In re Peterson,* 315 F.3d 1325, 1330 (Fed. Cir. 2003) ("The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages."); *In re Boesch,* 617 F.2d 272, 276 (CCPA 1980) ("[D]iscovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art."); *In re Aller,* 220 F.2d 454, 456 (CCPA 1955) ("[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation."). "Only if the 'results of optimizing a variable' are 'unexpectedly good'

can a patent be obtained for the claimed critical range." *In re Geisler,* 116 F.3d 1465, 1470 (Fed. Cir. 1997) (quoting *In reAntonie,* 559 F.2d 618, 620 (CCPA 1977)). At the time of the invention, it would have been obvious to one of ordinary skill in the art to use a gas barrier film with a lower thickness to increase the flexibility of the overall laminate.

44. This table describes which layers of Takahashi correspond to a given layer of Applicant:

Applicant	Takahashi
Plastic substrate	(I) microporous base layer
Inorganic thin film	(III) Inorganic thin film
Polyester-based coating material	(II) Gas barrier resin film
Anchor coat layer	(Ib) Primer layer

45. Regarding claim 2:

46. The (I) microporous base layer comprises a synthetic paper made of polyethylene, polyamides, or polyethylene terephthalate (col 4 ln 21-24).

47. Regarding claims 4-5:

48. Kajimaru discloses isocyanate curing compounds for use in the polyester resin to improve processing, waterproofness, and solvent resistance [0078]. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use an isocyanate curing compound in Takahashi to improve processing, and waterproofness, and also keep the hydroxyl value of the isocyanate approximately the same as the value of the polyester to ensure the waterproof property of the layer.

49. Regarding claim 7:

50. The film can be chemically vapor-deposited (CVD) (col 5 ln 64) and comprises aluminum oxide or silicon oxide (col 5 ln 38).

51. Regarding claims 8-9:

52. As mentioned the primer layer corresponds to Applicant's anchor layer. The primer comprises polyurethane (col 6 ln 27).

53. Regarding claim 12:

54. The present claim is written in a product-by-process format. Given the final product of Takahashi with Kajimaru comprises the same layers as Applicant discloses in the present claims, the examiner takes the position the final product would be indistinguishable from the product presently claimed.

55. Regarding claims 13-15:

56. Since the laminate created by the combination of Takahashi with Kajimaru comprises the same layers as Applicant describes, the examiner takes the position that the laminate would intrinsically possess the properties as described in the present claims 12-15.

57. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (US 6,013,363) in view of Kajimaru et al. (US 2002/0061959) as applied to claims 1-2, 4-5, 7-9, and 12-15 above, and further in view of Hall et al. (US 2002/0009564).

58. Takahashi in view of Kajimaru is previously described.

59. Both references are silent with regard to a fatty acid, fatty ester, or fatty amide being added to the polyester resin layer.

60. Fatty acid amides are well-known slip additives to polyester, however, as evidenced by Hall et al. [0002].

61. At the time of the invention, it would have been obvious to one of ordinary skill in the art to add fatty acid amides to the polyester resin layer to improve its slip and, therefore, handling properties. Given that the range claimed by Applicant is so broad, one of ordinary skill would have naturally arrived at values within the range during routine optimization of the amount used.

62. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (US 6,013,363) in view of Kajimaru et al. (US 2002/0061959) as applied to claims 1-2, 4-5, 7-9, and 12-15 above, and further in view of Powell et al (US 5,427,235).

63. Takahashi in view of Kajimaru is previously described. Given that claim 11 of the present application allows for layers disposed between the printed layer and heat seal layer, while describing the

heat seal layer as being on the surface of said printed layer, the examiner considers the printed layer (P) to be on a surface of the (II) gas barrier layer, which corresponds to the polyester-based resin coating layer.

64. Both references are silent with regard to a printed layer having a heat seal layer thereon.

65. Applying a heat seal layer to a printed layer was well-known in the packaging art, however. For example, Powell et al. disclose a heat seal layer applied to a printed surface (Abstract, col 4 ln 64-65).

66. At the time of the invention, it would have been obvious to one of ordinary skill in the art to apply a heat seal layer to the printed layer (P) disclosed by Takahashi to create a new sealing surface as needed to protect the print layer.

67. Claims 1, 2, 4, 5, 7, 9, and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deak et al. (US 5,084,356) in view of Kajimaru et al. (US 2002/0061959).

68. Regarding claims 1 and 2:

69. Deak discloses a structure comprising a substrate and an inorganic coating (col 3 ln 17-31). The substrate comprises plastic polymers (col 3ln 59+). The thickness of the inorganic coating can be as little as 20 nm (col 4 ln 58-61).

70. Deak is silent with regard to an anchor layer.

71. Deak discusses the requirements of a smooth film for depositing the inorganic coating (col 4 ln 17-47). In particular he notes particular processes are required to achieve a smooth film of PET. One of ordinary skill in the art would recognize the economy of using a thin layer of a smooth film of oriented PET in conjunction with a layer of non-smooth PET for it's bulk properties, e.g. structural strength.

72. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use a layer of oriented PET on a layer of cheaper non-smooth bulk PET to ensure proper adhesion of the inorganic layer to said bulk PET, thus providing a cheaper substrate that can receive the inorganic layer.

73. Deak teaches a protective layer of polyester on top of the inorganic layer (col 7 ln 46-65). The thickness of this layer can be as little as 0.5 micrometers.

74. Deak is silent with regard to the glass transition temperature, molecular weight, and hydroxyl value of the polyester used for the gas barrier resin film.

75. Kajimaru discloses a polyester resin having high waterproofness, and useful as a coating [0001-4]. The polyester resin has a hydroxyl value of less than 30mg KOH/g [0035] and a weight average molecular weight of 9,000 or more [0009]. Kajimaru discloses the polyester resin has glass transition temperatures in the range of 40-100˚C, thereby overlapping with Applicant's range [0036]. Example embodiments of the resin have glass transition temperatures within the range claimed by Applicant (p10, Table 1). As set forth in MPEP 2144.05, in the case where the claimed range "overlap or lie inside ranges disclosed by the prior art", a *prima facie* case of obviousness exists, In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). The examiner notes Kajimaru's polyester resins comprise terephthalic acid, isophthalic acid, ethylene glycol, and neopentyl glycol [0122], just as Applicant discloses in Example 1 (p31 of the present specification).

76. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Kajimaru's polyester resin as the gas-barrier in Deak's laminate to improve the waterproof qualities of the barrier.

77. This table describes how Deak's laminate corresponds to Applicant's laminate:

Applicant	Deak
(A) Plastic substrate	Substrate
(B) Inorganic thin film	Inorganic thin film
(C) Polyester-based coating material	Protective layer
Anchor coat layer	Smooth substrate layer

78. Deak discloses the barrier the oxygen permeability value presently claimed (col 3 ln 25-26). Although Deak is silent with regard to the water permeability of the laminate, the examiner takes the position the laminate of Deak in view of Kajimaru intrinsically meets said permeability given the two laminates are the same.

79. Regarding claims 4-5:

80. Kajimaru discloses isocyanate curing compounds for use in the polyester resin to improve processing, waterproofness, and solvent resistance [0078]. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use an isocyanate curing compound in the polyester to improve processing, and waterproofness, and also keep the hydroxyl value of the isocyanate approximately the same as the value of the polyester to ensure the waterproof property of the layer.

81. Regarding claim 7:

82. The inorganic material is a silicon oxide that is vacuum, i.e. vapor, deposited (col 4 ln 66+).

83. Regarding claim 9:

84. The smooth substrate layer comprises polyester.

85. Regarding claim 12:

86. The present claim is written in a product-by-process format. Given the final product of Deak with Kajimaru comprises the same layers as Applicant discloses in the present claims, the examiner takes the position the final product would be indistinguishable from the product presently claimed.

87. Regarding claims 13-15:

88. Since the laminate created by the combination of Deak with Kajimaru comprises the same layers as Applicant discloses in the present claim, the examiner takes the position that the laminate would intrinsically possess the properties as described in the present claims 12-15.

89. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deak et al. (US 5,084,356) in view of Kajimaru et al. (US 2002/0061959) as applied to claims 1, 2, 4, 5, 7, 9, and 12-15 above, and further in view of Hall et al. (US 2002/0009564).

90. Deak in view of Kajimaru is previously described.

91. Both references are silent with regard to a fatty acid, fatty ester, or fatty amide being added to the polyester resin layer.

92. Fatty acid amides are well-known slip additives to polyester, however, as evidenced by Hall et al. [0002].

93. At the time of the invention, it would have been obvious to one of ordinary skill in the art to add fatty acid amides to the polyester resin layer to improve its slip and, therefore, handling properties. Given that the range claimed by Applicant is so broad, one of ordinary skill would have naturally arrived at values within the range during routine optimization of the amount used.

94. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deak et al. (US 5,084,356) in view of Kajimaru et al. (US 2002/0061959) as applied to claims 1, 2, 4, 5, 7, 9, and 12-15 above, and further in view of Powell et al (US 5,427,235).

95. Deak in view of Kajimaru disclose a laminate as previously described.

96. Both references are silent with regard to a printed layer having a heat seal layer thereon.

97. Printed layers and heat seal layers thereon were well-known in the packaging art, however. For example, Powell et al. disclose a heat seal layer applied to a printed surface (Abstract, col 4 ln 64-65).

98. At the time of the invention, it would have been obvious to one of ordinary skill in the art to apply a printed layer to provide aesthetic features to packaging made from the laminate of Deak and Kajimaru, and further provide a sealing layer thereon to protect the printed layer and provide sealing properties.

Claim Rejections - 35 USC § 112

99. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

100. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

101. Claim 12 recites “forming the inorganic film (B) on the plastic substrate (A) or on the anchor coat layer formed on the plastic substrate (A).” Present claim 1 has been amended to recite the presence of the anchor coat. Therefore, the “forming the inorganic film (B) on the plastic substrate (A)” of claim 12 confuses the ordering of layers and makes it unclear what is required by the claim.

Response to Arguments

102. Applicant's arguments filed 26 March 2009 have been fully considered but they are not persuasive.

103. Regarding rejections under 35 USC 112:

104. Applicant's amendment to claim 2 overcomes the previous rejection.

105. Regarding rejections under 35 USC 103:

106. The examiner previously addressed Applicant's remarks in the Advisory Action mailed 6 April 2009. The examiner's response is reproduced here:

> Applicant points to column 6, lines 48-54 of Takahashi and submits "the (II) gas barrier resin film layer must already be present as the shape of film which can be subjected to formation of the (III) inorganic oxide thin film layer" (p7). Applicant then asserts Kajimaru provides no motivation "to produce a film using the aqueous dispersion of polyester resin for a coating material" (p7).
>
> The examiner notes the rejection relies on using the polyester resin film of Kajimaru, not the aqueous dispersion used to make the polyester resin film. Further one of ordinary skill in the art would recognize a film made from said aqueous dispersion could be used within Takahashi's laminate to provide improved waterproof qualities of the barrier.
>
> Also note, there is no evidence to suggest that one could not coat either the (Ib) primer layer or (IV) heat sealable resin layer with the aqueous dispersion and thus arrive at a film suitable for Takahashi's laminate.
>
> Regarding arguments the references are "completely different from each other", Applicant is reminded that according to MPEP 2141.01 (a), a reference may be relied on as a basis for rejection of an applicants' invention if it is "reasonably pertinent to the particular problem with which the inventor is concerned." A reasonably pertinent reference is further described as one which "even though it maybe in a different field of endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." Kajimaru is, therefore, a reasonably pertinent reference, because it teaches an aqueous dispersion of a polyester for use as a waterproof film, which is a function especially pertinent to the invention at hand.
>
> In response to Applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).
>
> Regarding arguments about deficiencies of the secondary references, the examiner notes the references cited by Applicant are not used in the current rejections, most likely the result of a mere clerical error. In good faith, the examiner interprets Applicant's remarks to be directed at the references Hall and Powell.
>
> Note that while Hall does not disclose all the features of the present claimed invention, it is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely the use of fatty acid amides as slip additives for polyester, and in combination with the primary reference, discloses the presently claimed invention.

Note that while Powell does not disclose all the features of the present claimed invention, it is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely the application of a heat seal layer to a printer layer, and in combination with the primary reference, discloses the presently claimed invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Freeman whose telephone number is (571)270-3469. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571)272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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